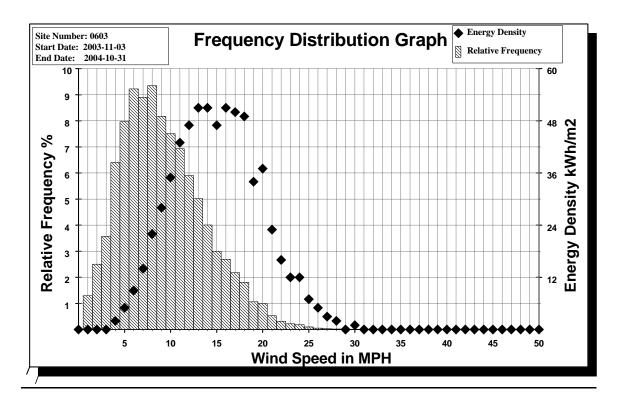
## Site 0603- Nevada Missouri



## Reading the graph of "Distribution of Wind Speeds (Frequency Distribution)"

**In brief:** This graph shows how often the wind reaches a speed between 0 and 50 miles per hour and energy available at each speed.

## Additional details:

Frequency Distribution data is typically used to estimate the energy that could be generated by a wind turbine at the site. Wind speed data is segregated into wind speed class intervals called bins. The bins are shown on the horizontal axis in one mile per hour increments. The graph provides a visual representation of the relative frequency (left hand vertical axis) that winds of a given speed occur at the site during the period noted in upper left corner of the graph.

The frequency distribution data, together with a wind turbine power curve (a detailed series of energy levels generated by a turbine when operating at each of the wind speed bins where the turbine is operational), can be used to estimate the wind power a specific turbine can provide in a given wind pattern.

The diamond shaped symbols on the graph correspond to the energy density (right hand vertical axis) associated with each of the wind speed bins. Energy density is defined in units of kilowatt-hours per square meter  $(kWh/m^2)$  over some period of time. As a result the numeric scale on the right side of the graph is likely to differ for graphs that cover different time periods. See upper left corner of graph for beginning and end of time period covered for each graph.

NOTE: These graphs were prepared with NRG Systems' Microsite software. Descriptions of the graphs are adapted from Appendix B of the Microsite manual.

